

PATENT ABSTRACTS OF JAPAN

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(71)Applicant : MIYAGI KAGAKU KOGYO
KK

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(72)Inventor : SAKAI YASUO

(54) COLLAGEN-PRODUCING PROMOTER, COSMETIC, FOOD AND PHARMACEUTICAL CONTAINING THE SAME AND EXTERNAL PREPARATION FOR PREVENTING OR IMPROVING DERMATOSIS

(57)Abstract:

PROBLEM TO BE SOLVED: To obtain a collagen-producing promoter, a functional food, a medicinal agent, a growth promoting agent for osteoblast or fibroblast, a bone enhancer or bone density improver, a metabolism promoter of in vivo tissues, a skin activator, a preventive agent or improver for functional reduction of skin or bone by aging, a preventive agent or improver for osteoporosis, an improver for chronic rheumatoid arthritis or osteoarthritis, a promoter for healing bone fracture or wound, an external preparation for preventing or improving dermatosis, an external preparation for improving itchy feeling of the skin caused by

(A)



<図1 皮膚組織の顕微鏡写真（H&E染色）>

(B)



<図2 皮膚組織の顕微鏡写真（H&E染色）>

(C)



<図3 皮膚組織の顕微鏡写真（H&E染色）>

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dialysis, an external preparation for improving itchy feeling of the skin caused by atopic dermatitis, an external preparation for preventing or improving a rash by tape on the skin, an external preparation for improving cracks on the skin caused by diabetes and a modifier for generating cultured skin or artificial skin, efficiently and rapidly digested and absorbed even when ingested in a little amount.

SOLUTION: This collagen-producing promoter comprises a mixture of tripeptides having amino acid sequences expressed by general formulae: (Gly-Ala-Arg), (Gly-Ala-Hyp), (Gly-Ala-Lys), (Gly-Pro-Ala), (Gly-Pro-Arg), (Gly-Pro-Hyp) and (Gly-Pro-Ser) as effective agents.

< 投与 24 時間後 (投与回数 : 1 2 4) >

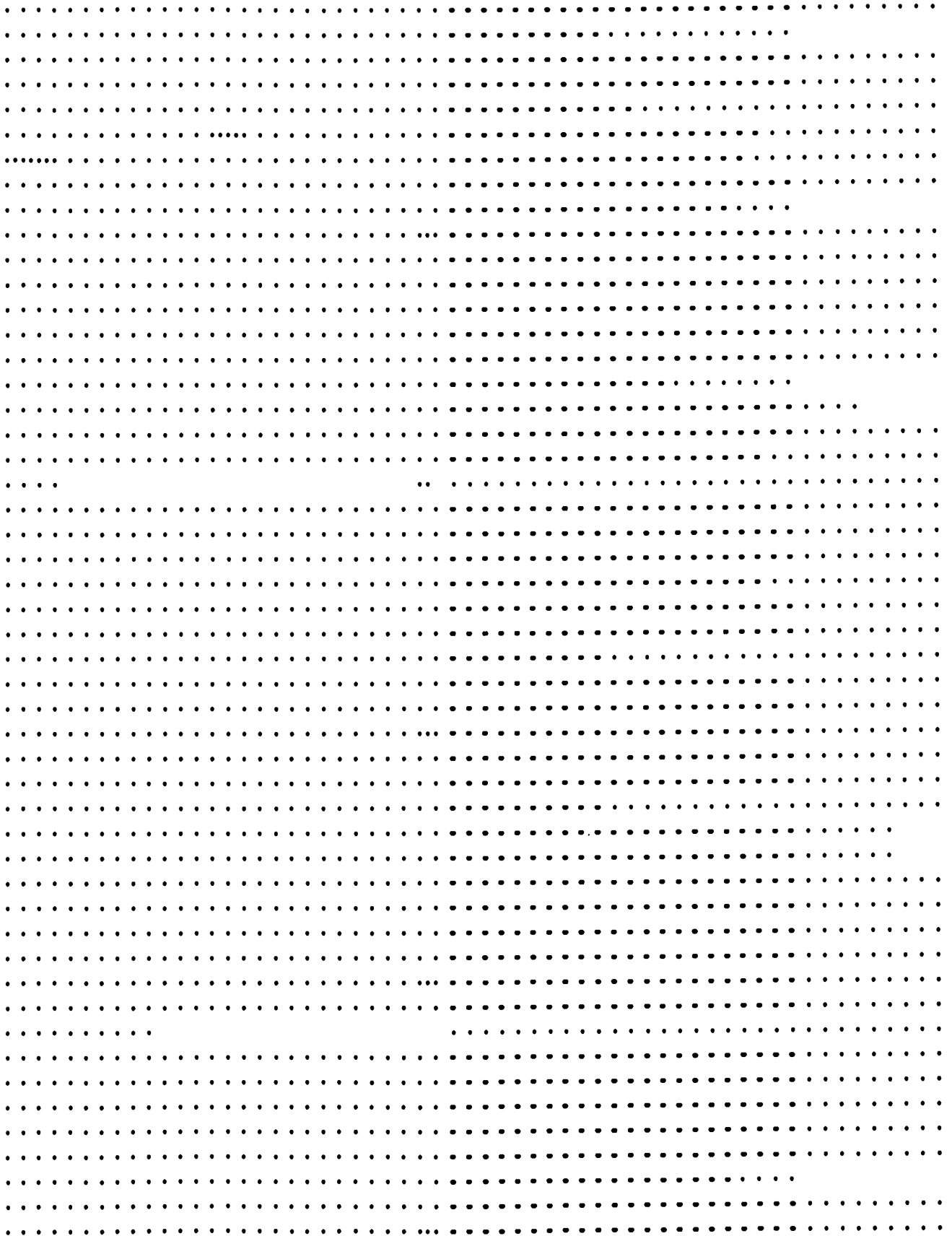
[illegible]

[illegible]

[illegible]

[illegible]

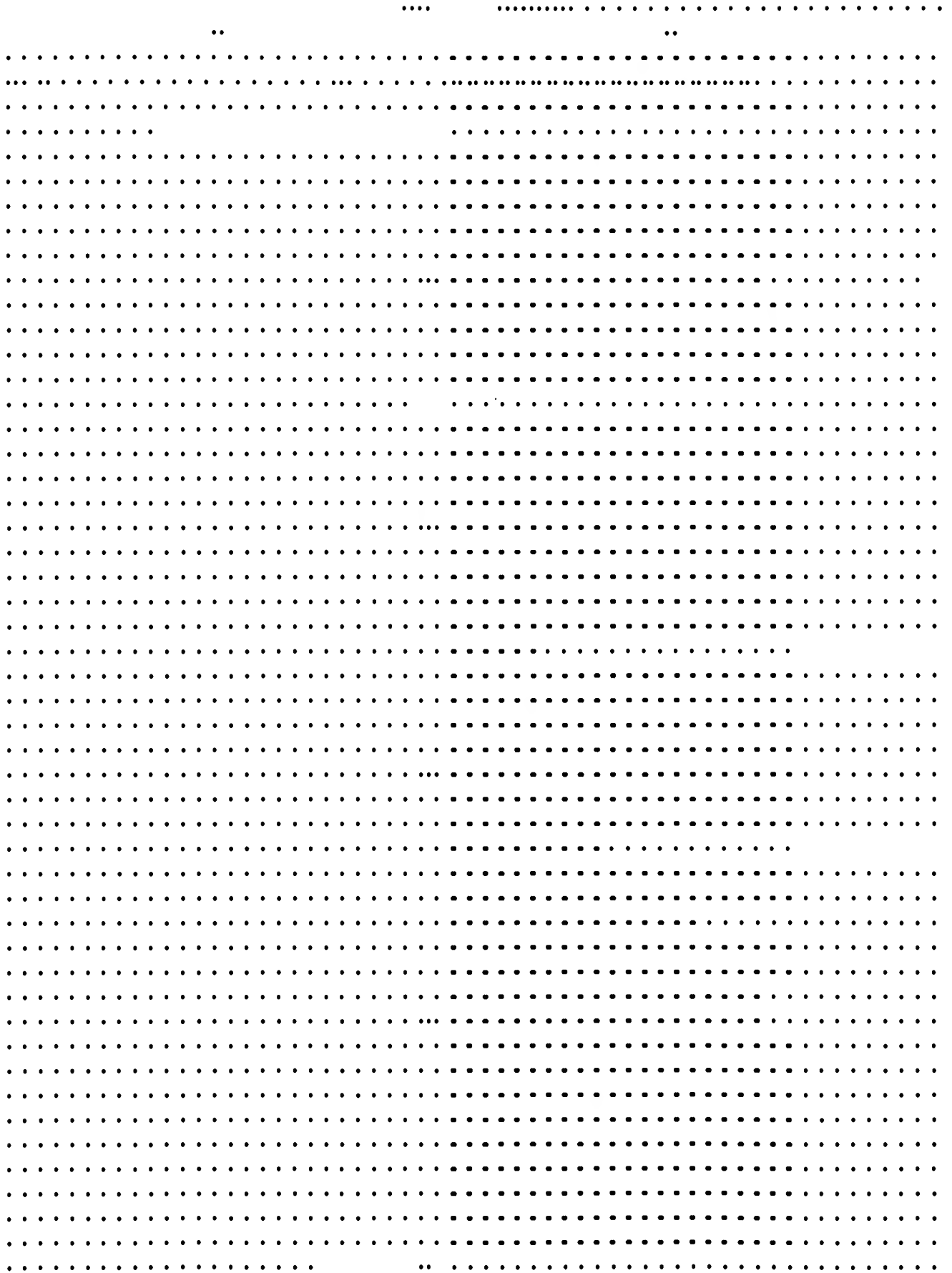
[illegible]



The image consists of a large, uniform grid of small black dots arranged in a rectangular pattern. At the top center and top right of the grid, there are two small, distinct clusters of dots, each forming a small, irregular shape. The rest of the grid is a continuous, repeating pattern of dots.

[illegible]

a)



.....

• •

[illegible]

A 20x20 grid of dots. A faint, stylized letter 'A' is formed by the dots. The 'A' is composed of a vertical line on the left, a vertical line on the right, and a horizontal crossbar. The dots are arranged in a way that the 'A' is the only prominent shape, with the rest of the grid being empty space. The 'A' is located in the center of the grid, with its top at row 10 and its base at row 19. The vertical lines are at columns 10 and 18, and the crossbar is at row 15. The 'A' is formed by dots that are slightly offset from the main grid, creating a subtle watermark effect.

A large grid of dots forming a stylized letter 'A' shape, with a small 'A' logo in the top right corner. The dots are arranged in a pattern that tapers from left to right, creating the overall shape of the letter. The 'A' logo in the top right corner is a small, solid black letter 'A' with a dot above it.

The image displays a complex dot pattern on a white background. The pattern is organized into several distinct rectangular blocks and lines of dots, arranged in a grid-like fashion. The dots are small, black, and evenly spaced within each block. The overall structure is symmetrical and appears to be a stylized representation of a grid or a complex data visualization. The pattern is composed of numerous small dots arranged in a grid-like structure, with some areas being more densely packed than others. The dots are arranged in a way that suggests a larger, underlying grid, with some areas being more densely packed than others. The pattern is symmetrical and appears to be a stylized representation of a grid or a complex data visualization.

(g/100g)

	a 群	b 群	c 群	d 群	e 群
精製大豆蛋白	19.0	19.0	19.0	19.0	19.0
Ｌ－システイン	0.3	0.3	0.3	0.3	0.3
コーンスターチ	39.7	39.7	39.7	39.7	39.7
α化コーンスターチ	13.3	13.3	13.3	13.3	13.3
シュークロース	10.0	10.0	10.0	10.0	10.0
大豆油	7.0	7.0	7.0	7.0	7.0
セルロースパウダー	5.0	5.0	5.0	5.0	5.0
重酒石酸コリン	0.2	0.2	0.2	0.2	0.2
ビタミン・ミネラル混合 A	4.5	4.5	4.5	4.5	—
カルシウム・ビタミン強化 B	—	—	—	—	4.5
コラーゲントリペプチド 試料(A)	—	1.0	—	—	—
コラーゲントリペプチド 試料(B)	—	—	1.0	—	1.0
コラーゲントリペプチド (従来品)	—	—	—	1.0	—

配合成分

コラーゲントリペプチド
グリチルリチン酸ジカリウム
グリセリン
ヒアルロン酸
1,3-ブチレングリコール
防腐剤
純水

配合量 (重量%)

0.5
0.1
5.0
0.01
5.0
適量
残余

配合成分	配合量 (重量%)
コラーゲントリペプチド	0.5
グリセリン	5.0
ヒアルロン酸	0.01
1,3-ブチレングリコール	5.0
防腐剤	適量
純水	残余

	テープかぶれに対する改善効果 (人)				
	A	B	C	D	E
CTP ローション処方(b)	9	2	1	0	0
コントロール処方	0	2	3	6	1

配合成分

コラーゲントリペプチド

純水

親水軟膏

配合量(重量%)

2.0

5.0

残余

飲 料	皮膚の角層水分含量 (μS)			TEWL 抑制効果 (有意差)
	試験開始前	試験終了後	上昇効果(有意差)	
①	52.4±6.8	59.5±5.9	有 : Δ7.1*	有 : 13.2% 抑制**
②	53.1±5.6	54.4±7.1	無	無
③	53.4±5.6	54.1±6.2	無	無
④	52.8±8.5	53.0±7.3	無	無

*p<0.10

**p<0.01

【評価基準】

- A. 改善された
- B. やや改善された
- C. 変化なし(改善効果が認められない)
- D. やや悪化した
- E. 悪化した

飲 料	肌のハリ					しわ				
	A	B	C	D	E	A	B	C	D	E
①	5	5	7	0	0	3	7	7	0	0
②	1	1	10	3	0	0	3	11	1	0
③	0	2	12	2	0	1	2	13	0	0
④	0	1	13	2	0	0	2	12	2	0

(A)



<投与24時間後（投与濃度：1 μM）>

(B)



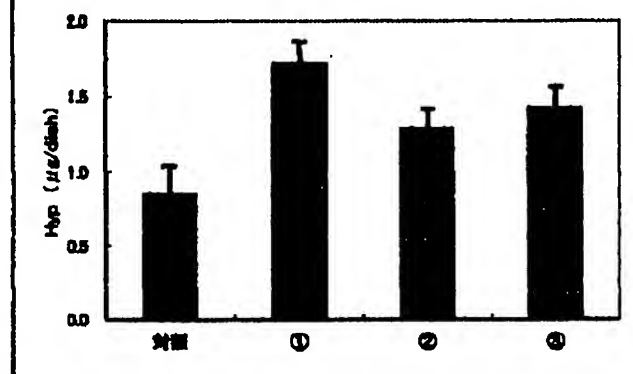
<投与24時間後（投与濃度：5 μM）>

(C)



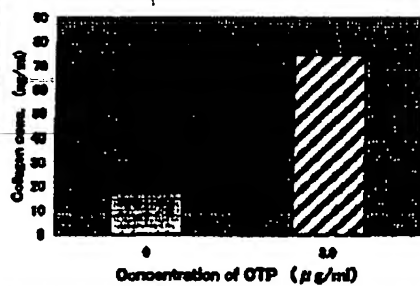
<投与24時間後（投与濃度：1.2 μM）>

【図-3】



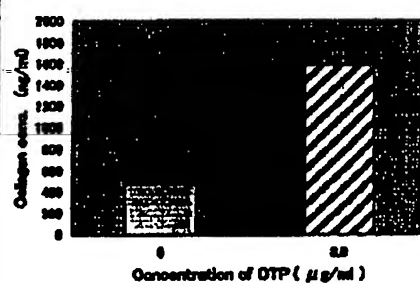
(A)

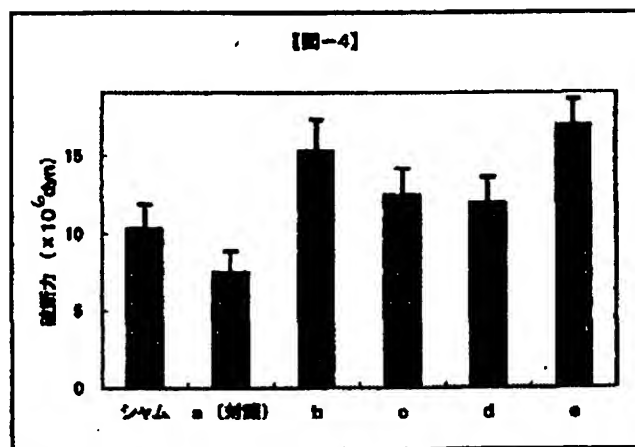
Collagen production by human fibroblast cell
[0 μM ABA]



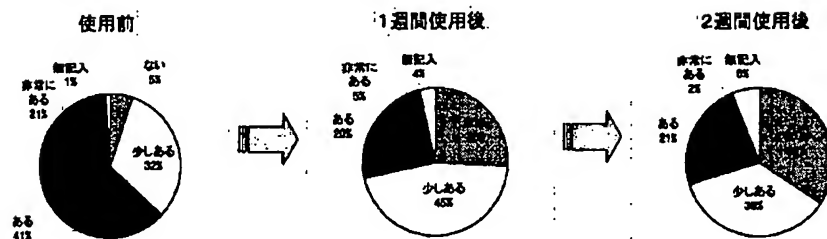
(B)

Collagen production by human fibroblast cell
[1 μM ABA]

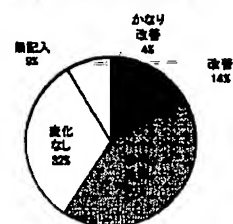




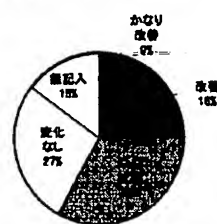
かゆみ



使用前との比較(1週間使用後)

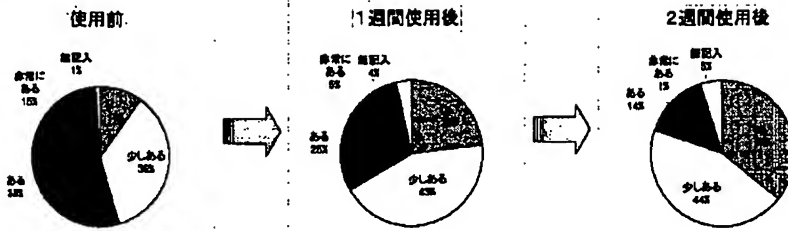


使用前との比較(2週間使用後)

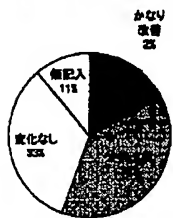


症例数
82例

ひび割れ改善効



使用前との比較(1週間使用後)



使用前との比較(2週間使用後)

